

passing over the mountains. The first indication of rather strong convectional activity is seen over the Coast Range in the form of cumulus and cumulo-nimbus clouds which are associated later with a light local storm that eventually reaches the vicinity of Roseburg, 10 miles east of the main range. The whole region in this vicinity between the Coast Range and the Cascades consists of broken hills of considerable elevation and narrow, irregular valleys along the winding water courses.

During the passage of some of these storms, visibility and ceiling are reduced to a minimum, and especially if snow predominates, as it often does on the mountains and higher hills, if the day is unusually cool. It occasionally happens that an airplane is forced to land in this vicinity on account of one or more of these local "snow showers" prevailing in or near this region; but usually the chief menace from local snow storms occurs in the transverse ranges of mountains and hills marking the northern and southern limits of the Umpqua basin in which Roseburg is situated.

Weak squall conditions are likely to prevail for a day or more at a time of slowly rising barometer, or the short transition period of upward pressure tendency between the passages of successive cyclonic areas. In fact a large percentage of the rainfall during the spring season occurs under such pressure conditions, very little rain occurring while the barometer is falling, except for slight subsequent falls, or when the center of the storm passes near the station. However, there usually is a period of maximum rainfall that occurs during the first part of the pressure rise, before the squall stage is reached. The abnormally cold and dry season that has prevailed this spring, 1929, seemed to be unusually favorable for squall formation.

NOTES, ABSTRACTS, AND REVIEWS

*The second conference on cycles.*¹—The first conference was held in December, 1922, and was reported on in *Geographical Review*, Special Supplement, vol. 13, 1923, pp. 657-676. The purpose of the second conference was the discussion of new material accumulated since the first conference.

A reading of the abstract of the work of the second conference leaves the impression that beyond methods of refinement in observational methods, the status of the problem of cycles, whether in solar radiation, tree rings, clay varves, or whatnot, has not risen above the position that it has occupied for the last quarter of a century. The suggestion was made that a point had been reached where some or all of the observations should be duplicated in the Southern Hemisphere.

The meeting was held in Washington, D. C., on December 15, 1928, under the direction of President Merriam, of the Carnegie Institution of Washington, with Dr. D. T. McDougal, of the institution's division of plant biology, in the chair; present also 35 other scientists representing a number of the physical sciences.

High lake levels.—Meteorologist J. H. Spencer, in charge of the Weather Bureau station at Buffalo, N. Y., sends the editor an account of the severe wind storm that prevailed on April 1, 1929, at that station. The speed of the wind on this occasion reached at 3:10 p. m. a velocity of 78 miles per hour, for a 5-minute period, and this is the greatest velocity of record for any month. Naturally, considerable damage was caused by the high winds;

trees 1 to 2 feet in diameter were blown down, frail houses and garages were unroofed, and in some cases overturned. Several steamers in the harbor were torn loose from their moorings and the water in the harbor rose 7.8 feet above its normal level. Mr. Spencer also furnished a copy of the drawing made by the United States engineers at Buffalo from which Figure 1 is reproduced.

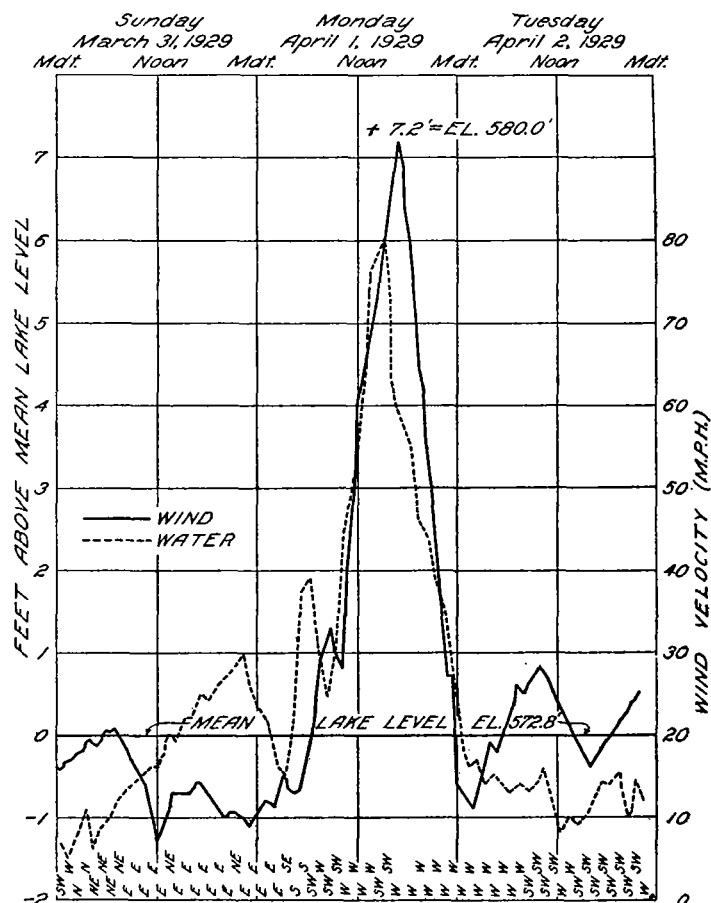


FIGURE 1.—Winds and Lake levels, April 1, 1929

The heaping up of the water of Lake Erie in Buffalo harbor due to strong westerly winds is a well-known feature of that harbor. The figure shows the rapid rise of the water almost concurrently with the increase in wind velocity; it also shows a lowering of the water in the early part of the day due to the prevalence of east winds.

On April 12, 1929, the *New York Times* printed dispatches from a number of places in the lake region all but one of which reported dangerously high water in the Lakes. On looking up the weather chart for the day in question it was found that east to northeast winds had prevailed for more than 24 hours. Inasmuch as the places reporting high water were on the western shore of Lake Michigan the conclusion is unavoidable that the high water was the result of wind action.—A. J. H.

*Kalitin on illumination by diffused light during the solar eclipse, June 29, 1927.*²—Malmberget, Sweden, is at latitude 67° 20' N., longitude 20° 54' E. Continuous records of the intensity of the illumination by diffused light were obtained by means of a potassium photocell covered with a horizontally adjusted milk-white glass with a feeble yellow light screen, selected so as to render the spectral sensitiveness of the photocell approximately

¹ *Geographical Review* XIX: 296-306, April, 1929.

² *Geografiska Annaler*, 1928. H. 3.